

Research capacity building—obligations for global health partners



Global health continues to gain pace as a discipline, as is evident from the amount of funding available for challenges relevant to low-income and middle-income countries (LMICs)^{1,2} and the growth of journals in this field. This growth has been driven in no small part by the targets and indicators of the Millennium Development Goals. Successes towards achieving these goals, however, have often come from expertise, funding, and ideas flowing from high income countries (HICs) to LMICs; with HIC players being accused of parachuting in to LMICs to act or set up state of the art, HIC led and staffed facilities.³ This neo-colonialist model means that despite the scale of capital inflows, huge gaps in infrastructure, management systems, and human capital remain for health systems, government and governance structures, and research institutes in LMICs.^{4,5}

We believe that addressing the gap in research capacity in LMICs is pivotal in ensuring broad-based systems improvement, with local knowledge and training being central to responsive health system development, proper governance, and responsible government. Unfortunately, the lion's share of global health research institutes are in HICs and the funding that fuels them comes mostly from HIC funds.^{4,5} To us, this belies key principles of scientific equity in global health research.

Notwithstanding issues of equity, improvement of research capacity in LMICs has practical benefits. People working and living in LMICs are better placed to define issues of importance to their populations than are people living thousands of miles away in HICs—who often fund research based on their own interests.⁶ But the neo-colonialism of global health has muted the local voice, and a lack of long-term investment in infrastructure has made institutes and researchers in many LMICs ill-equipped to find local solutions to local problems.

Local solutions are also more likely to have buy-in from local providers and policymakers, and this ownership should result in solutions that are more sustainable than those imposed by others. Indeed, some highly successful global health initiatives have been developed in LMICs.⁷⁻⁹ The concept of true partnerships

Panel: A prescription for change

HIC funders' obligations

- Ensure global health funding awarded to HIC institutes has a LMIC research capacity building element, especially training of LMIC researchers
- Ensure calls reflect local needs, rather than HIC funder interests
- Mandate that proposals are developed in equal partnership with LMIC researchers and institutes
- Increase funding for epidemiological, qualitative, and health system work to understand local burden of disease, health care beliefs, and other local contexts
- Ensure plans for hand-over of infrastructure in LMICs within a realistic, predetermined timeframe
- Mandate that funding panels attain balance in assessors from LMICs and HICs

HIC universities' and researchers' obligations

- Develop proposals in equal partnership with researchers in LMICs
- Ensure all LMIC researchers involved in studies have the opportunity to actively and substantively contribute to resultant manuscripts as authors
- Ensure time and funding within grants for HIC researchers to travel to LMICs to provide in-person training for LMIC partners
- Consider secondments for LMIC researchers in HICs (while recognising that in-country training might be more sustainable)
- Consider developing online programs for continued mentoring and training
- Consider institutionalising relationships with LMIC partners

LMIC universities' and researchers' obligations

- Tighten local governance; improve leadership and accountability at all levels of institutional hierarchy
- Ensure involvement in discussions about relevance of research proposals to local contexts
- Be firm in declining collaborations that do not fit with local priorities
- Create incentives for faculty to conduct research
- Ensure the provision of infrastructure necessary for conducting research
- Ensure adequate training, funding, and time for researchers to contribute to manuscripts
- Promote programmes, such as HINARI, for academic journal access
- Invest in and encourage use of online training tools and look to non-traditional income sources for funding, for example local businesses

LMIC government obligations

- Recognise the importance of local research and prioritise funding for this
- Consider raising funds for research by taxes on large-scale private industry in-country (eg, mining, mobile networks)

Journals' obligations

- Ensure fee waivers for open-access publication where research is not directly supported by HIC funders
- Mandate that publications from research done in LMICs include authors who are living and working in those countries
- Consider an extended development and mentoring role for authors in LMICs

HIC=high-income country. LMIC=low-income and middle-income country. HINARI=access to research in health programme.

in global health research is not new, and fortunately, competitive research funding calls in HICs are now beginning to require research capacity building in LMICs.^{10,11} We believe, however, there needs to be a much greater effort to ensure that rhetoric is converted to action. It is therefore clear to us that a more robust approach is required to ensure research capacity development in LMICs. We call on all organisations and individuals involved in global health research to ensure that capacity building in LMICs is no longer neglected (panel).

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We declare no competing interests.

These recommendations are based on our own experience of doing research collaboratively and from within LMICs. To confirm that our experiences matched those in an independent setting, JD hosted a round table discussion on this topic with clinical providers, researchers, and heads of institutes held in Freetown, Sierra Leone. We would like to thank Rashid Ansumana (Mercy Hospital Research Laboratory, Bo, Sierra Leone), and all participants of that meeting for their contributions.

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- 1 Dieleman JL, Haakenstad A. The complexity of resource allocation for health. *Lancet Glob Health* 2015; **3**: e8–9.
- 2 Dieleman JL, Schneider MT, Haakenstad A, et al. Development assistance for health: past trends, associations, and the future of international financial flows for health. *Lancet* 2016; **387**: 2536–44.
- 3 Bhutta Z. Practising just medicine in an unjust world. *BMJ* 2003; **327**: 1000–01.
- 4 Byass P. Is global health really global? *Glob Health Action* 2013; **6**: 1–3.
- 5 Ijsselmuiden C, Marais DL, Becerra-Posada F, Ghannem H. Africa's neglected area of human resources for health research—the way forward. *S Afr Med J* 2012; **102**: 228–33.
- 6 Davies J, Mullan Z. Research capacity in Africa 2014—will the sun rise again? *Lancet Glob Health* 2016; **4**: 375.
- 7 Davies J. Collaborative funding for NCDs—a model of research funding. *Lancet Diabetes Endocrinol* 2016; **4**: 725–27.
- 8 Sankoh O. Why population-based data are crucial to achieving the Sustainable Development Goals. *Int J Epidemiol* 2017; published online Feb 15. DOI:10.1093/ije/dyx010.
- 9 Institute AHR. Armauer Hansen Research Institute. <http://ahri.gov.et> (accessed April 20, 2017).
- 10 Costello A, Zumla A. Moving to research partnerships in developing countries. *BMJ* 2000; **321**: 827–29.
- 11 Sciences Switzerland. Commission for research partnerships with developing countries. <https://naturalsciences.ch/organisations/kfpe> (accessed April 20, 2017).